



White County Building & Planning

110 N Main St. PO Box 851 Monticello, IN 47960

Phone: (574)583-7355 Fax: (574)583-4624

www.whitecountyindiana.us

INDIANA ENERGY CONSERVATION CODE

The 2012 Indiana Energy Conservation Code has been adopted and is in full effect. The new energy code is applicable to all new construction, specific types of rehabilitations, and new additions.

For such projects, there are 3 energy code compliance methods or pathways from which to choose. At the time of permit application submission, you are required to choose which type of compliance method will be used and provide preliminary documentation.

-**Prescriptive** Pathway (most restrictive energy-related criteria to be followed). For new home, REScheck information/certification must be provided. For additions under 500sq.ft, the builder needs to receive a checklist for compliance.

-**Total UA Tradeoff** Pathway (allows building envelope tradeoffs)

-**Performance** Pathway (most flexible: considers heating, cooling & water heating costs) : *Requires a Third-Party Agency.*

To assist with the building inspection process, the project builder or design professional shall complete a Certificate of Compliance. This certificate must be permanently attached to the electrical panel and is to be furnished by the builder or third-party agency.

REScheck, from the US Department of Energy is **one** example of an approved software tool that can be used to complete a Certificate of Compliance. To access the software, please visit the following link:

- <http://www.energycodes.gov/compliance/evaluation/checklists>

Prior to the Building Department issuing a Certificate of Occupancy, the project builder is required to provide a confirmed or final Indiana Energy Code Certification. Draft or preliminary documentation provided during the initial permitting process will not take the place of the required final certification.

To access the 2012 Indiana Energy Conservation Code, please visit the following link:

-<http://www.in.gov/legislative/iac/20120201-IR-675110084FRA.xml.pdf>

2012 Indiana Energy Conservation Code

This code affects all homes permitted after June 4, 2012. The builder must choose the Prescriptive, Total UA or Performance Method of compliance. In addition to establishing compliance through one of those methods, the following red items MUST be completed for ALL paths and black items completed for Prescriptive and Total UA paths only. This information is based on interpretations provided by the State of Indiana as of 2-28-12 and this information is subject to change until Indiana supplies a written interpretation.

Main Mandatory Requirements:

- * All insulation materials must be marked with R-Value or installer must post a certificate listing all insulation values in a conspicuous location on job site—also, one thickness marker in attic for every 300 sf.
- * The builder or design professional must complete a certificate that lists the predominant R-Values of insulation for ceilings, walls, foundation, ductwork. U-factors for windows and efficiency levels of HVAC and water heating equipment. This certificate must be attached to the electrical panel.
- * Attic hatches from conditioned to unconditioned spaces must be weather stripped and insulated to a level equivalent to the surrounding area. A "dam" or equivalent must prevent attic insulation from spilling into living space.
- * Air leakage—The building thermal envelope shall be sealed to limit infiltration (see air sealing checklist). The checklist must be field verified by an approved party OR a blower door test can be performed after construction and must demonstrate the air leakage rate is below 7 ACH @50pa.
- * All ducts, air handlers and filter boxes must be sealed. The duct tightness must be verified with a ductblaster test.

**Not required if all ducts and air handler are located within the conditioned space.

- * Supply ducts located in the attic must be insulated to R-8. All other ducts must be insulated to R-6. (Note: Supply ducts insulated to R-6 if using the Performance Path). Exception: Ducts within conditioned space.
- * New wood burning MASONRY fireplaces must have gasketed doors and outdoor combustion air.
- * All recessed lights must be IC-rated and the housings must be sealed with a gasket or caulk to the drywall.
- * At least one thermostat shall be installed that can be programmed. Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.
- * Building cavities may not be used as supply ducts.
- * Mechanical system piping capable of carrying fluids above 105° F or below 55° F shall be insulated to at least R-3. Also, all circulating hot water system piping shall be insulated to at least R-2 and shall include a switch that can turn off the hot water pump when the system is not in use.
- * HVAC equipment must be sized according to ACCA Manual J eight edition.
- * Snow melt controls- snow and ice melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50° F and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40° F.
- * Pools—Pool heaters shall be equipped with a readily accessible on-off switch to allow shutting off of the heater without adjusting the thermostat setting.
- * Pool heaters fired by natural gas shall not have continuously burning pilot lights. Time switches that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on swimming pool heaters and pumps.
- * Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface. Pools heated to more than 90° F shall have a pool cover with a minimum insulation of R-12.
- * Lighting—A minimum of 50% of the lamps in permanently installed lighting fixtures shall be high-efficiency lamps.

PRESCRIPTIVE PATH:

Basement walls: R-10/13
Crawlspace walls: R-10/13
Slabs: R-10 2' down.
Rim & Band: R-13+5 or R-20
Exterior Walls: R-13+5 or R-20
Ceilings: R-38 Flat, R-38 Vaulted.
Windows: .35 U-Factor or lower.
Skylights: .60 U-Factor or lower.
Doors: Standard insulated steel.

A permanent certificate shall be posted on or in the electrical distribution panel.

SEE CERTIFICATE REQUIREMENTS PAGE FOR DETAILS.

UA Trade-off:

Basement walls: R-10
Crawlspace walls: R-10
Slabs: R-10 2' down.
Rim & Band: R-13+3
Exterior Walls: R-13+3
Ceilings: R-38 Flat, R-38 Vaulted.
Windows: .35 U-Factor or lower.
Doors: Standard insulated.

If the total building thermal envelope UA (sum of U-factor times assembly area) is less than or equal to the UA resulting from using the U-factors in Table N1102.1.2 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table N1102.1. The UA calculation shall be done using a method in accordance with Indiana Energy Conservation Code, 675 IAC 19-4, and shall include the thermal bridging effects of framing materials. Calculation procedures used to comply with this section shall be by use of approved computer software tools capable of calculating the total building thermal envelope UA that differs between "standard reference design" and the proposed design. REScheck, from the US Department of Energy, is an example of an approved software tool.

Typical Performance Path:

Basement walls: R-10 4' down.
Crawlspace walls: R-10 interior.
Slabs: R-10 2' down.
Rim & Band: R-13
Exterior Walls: R-13 & OSB
Ceilings: R-38 Flat, R-30 Vaulted.
Windows: .35 U-Factor or lower.
Doors: Standard insulated steel.

A permanent certificate shall be posted on or in the electrical distribution panel.

SEE CERTIFICATE REQUIREMENTS PAGE FOR DETAILS.

REPLACES CHAPTER 11 IN IRC

2012 Indiana Energy Conservation Code

CODE MEASURE	PRESCRIPTIVE PATH	TOTAL UA PATH	PERFORMANCE PATH
1101.3--Materials, systems and equipment shall be identified to allow determination of compliance.	X	X	X
1101.4--Insulation identified with R-value marked on product	X	X	X
1101.4.1--Rulers, with R-value identified, every 300 sf in attic.	X	X	X
1101.4.2--Install insulation so R-value mark is readily observable	X	X	X
1101.5--Fenestration products shall bear a label and certification (NFRCCIOO)	X	X	X
1101.6--R-value determined in accordance with the 16 CFR 460	X	X	X
1101.7--All materials, systems and equipment installed in accordance with manufacturers instruction. Also, exposed foundation insulation shall be protected.	X	X	X
1101.8--A permanent certificate must be posted on or in the electrical panel listing the R-value of all insulation, fenestration u-factors, equipment efficiencies.	X	X	X
1102.1--Thermal envelope shall meet requirements of Table N1101.2	X	X	
1102.1.1--R-value computation method.	X	X	
1102.1.2--U-factor alternative Table can be used.	X	X	
1102.1.3--Total UA Alternative Compliance.		X	
1102.2.1 and 1102.2.2--Attic insulation R-value allowances.	X		
1102.2.3--Access hatches and doors weatherstripped and insulated.	X	X	X
1102.2.4 and 1102.2.5--Mass wall and steel frame requirements.	X	X	
1102.2.6--Floor insulation installed so permanent contact with subfloor decking.	X	X	X
1102.2.7--Conditioned basement walls FULLY insulated top to bottom.	X	X	
1102.2.8--Slab insulation according to Table N1102.1	X	X	
1102.2.9--Crawl space walls insulating floors vs. walls.	X	X	
1102.2.10--Insulation not required on horizontal masonry support.	X	X	X
1102.2.11--Sunroom insulation requirements.	X	X	
1102.3--Fenestration requirements.	X	X	
1102.4--Air leakage requirements (1102.4.1-1102.4.5 This includes blower door testing (or air leakage checklist review), masonry fireplace requirements, fenestration air leakage section and IC rated can lights.	X	X	X
1102.5--Fenestration trade-offs.	X	X	
1103.1.1--Programmable thermostat installed.	X	X	
1103.1.2--Heat pump controls to prevent unnecessary supplemental heat operation.	X	X	
1103.2.1--Supply ducts in attic R-8; all others R-6 outside conditioned space*.	X	X	
1103.2.2--All ducts, air handlers, filter boxes shall be sealed and duct tightness must be tested with a duct blaster and may not exceed maximum amounts.	X	X	X
1103.2.3--Building cavities may not be used as supply ducts.	X	X	
1103.3--Refrigerant lines insulated to R-3.	X	X	
1103.4--All circulating hot water piping shall be insulated to at least R-2.	X	X	
1103.5--Mechanical ventilation intakes shall have gravity dampers.	X	X	
1103.6--HVAC equipment must be sized according to M1401.3.	X	X	
1103.7--Snow-melt system controls.	X	X	
1103.8--Pool requirements.	X	X	
1104--Lighting must be 50% high-efficiency lamps.	X	X	
*Performance Path Requires R-6 on ALL ducts outside conditioned space.			

INDIANA ENERGY CODE

RES CHECK & BLOWER DOOR TEST COMPANIES

ENERGY TESTING & COMPLIANCE

123 E PIERCE CIRCLE
MONTICELLO, IN 47960

PHONE: 574-297-8186

EMAIL:

ljclark95@yahoo.com

INDIANA WEATHERIZATION INC.

Michael "Mickey" Lugar
Certified Energy Auditor

PHONE: 219-743-3045

EMAIL:

Indiana.energy.audits@gmail.com

ENERGY DIAGNOSTICS, INC

395 E 500 N
VALPARAISO, IN 46383

PHONE: 219-464-4457

FAX: 219-464-0035

EMAIL:

mattb-energydiagnostics@hotmail.com

INDY ENERGY SOLUTIONS

2814 E 65TH ST

INDIANAPOLIS, IN 46220

info@indyenergysolutions.com

JOHN MAREN

EMAIL: jmaren@indyenergysolutions.com

PHONE: 317-508-1546

THERMO SCAN

Po Box 705

Carmel, IN 46082

EMAIL: travisd@thermo-scan.com

www.thermo-scan.com

PHONE: 800-481-5748

TRA CERTIFICATION, INT'L

700 EAST BEARDSLEY AVENUE

ELKHART, IN 46514

PHONE: 574-264-0745

PHONE: 574-264-0740

<http://www.tragreen.com>